BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND PART BILL

Name of work: Improvements to Roads and Drains at Thindlu and Kodigehalli Surrounding Areas in Ward No.09 Kodigehalli.

Estimated Cost : Rs. 100.00 Lakhs

Job Code: 009-22-000003

Head of Account : P3075 Special Comprehensive Development Works

Name of Agency: Sri. Subba Reddy K.V, No. 106/B, Aswathnagara, RMV 2nd Stage, Bangalore - 560094.

Work order No: BBMP/EE/BTP/WO/56/2021-22 Dated: 18-03-2022.

	Measurements Recarded on :									
Sl No	**Description of work**	**Mesurement**						**Qty**	**Rate / Unit**	**Amount**
		No.	**L**	**B1**	**B2**	**Av.,B**	**D**			
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 01 to 05 is =							**649.51**	217.56	**141308.00**
2	**Removing and refixing** stone slabs of drains and pointing in CM (1:3)									
									Sqm	
	Qty as per Premeasurement vide E-MB Page No. 06 to 08 is =							**1952.64**	116.64	**227756.00**
3	Providing granite slabs of selected quality roughly dressed having a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.									
	BS Slab for Missing / Damaged								Sqm	
	Bank Colony									
	1st Cross E/S	1	5.80			1.35		7.83		
		1	2.20			1.35		2.97		
	1st Cross W/S	1	5.50			1.35		7.43		
		1	5.60			1.35		7.56		
		1	3.60			1.35		4.86		
	2nd Cross S/S									
	W/S	1	3.00			1.35		4.05		
		1	5.60			1.35		7.56		
	2nd Cross N/S									
	E/S	1	5.60			1.35		7.56		
		1	6.40			1.35		8.64		
	W/S	1	6.40			1.35		8.64		
		1	4.60			1.35		6.21		
	Hanuman Badavane									
	3rd Cross Road E/S	1	6.50			1.35		8.78		
		1	4.00			1.35		5.40		
	3rd Cross Road W/S	1	5.50			1.35		7.43		
		1	5.60			1.35		7.56		
	4th Cross Road E/S	1	4.80			1.35		6.48		
		1	6.50			1.35		8.78		

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	4th Cross Road W/S	1	6.50			1.35		8.78	112.24	
		1	4.50			1.35		6.08		
		1	6.50			1.35		8.78		
	5th Cross Road E/S	1	4.80			1.35		6.48		
		1	4.60			1.35		6.21		
		1	7.80			1.35		10.53		
	5th Cross Road W/S	1	9.70			1.35		13.10		
		1	7.60			1.35		10.26		
		1	7.80			1.35		10.53		
	6th Cross Road E/S	1	6.50			1.35		8.78		
		1	5.60			1.35		7.56		
	6th Cross Road W/S	1	8.50			1.35		11.48		
		1	9.40			1.35		12.69		
	Buddha Jyothi Layout									
	Main Road N/S	1	6.50			1.35		8.78		
		1	4.50			1.35		6.08		
		1	4.60			1.35		6.21		
	Main Road S/S	1	4.90			1.35		6.62		
		1	4.50			1.35		6.08		
		1	8.50			1.35		11.48		
		1	3.50			1.35		4.73		
	1st Cross E/S	1	4.60			1.35		6.21		
		1	4.50			1.35		6.08		
		1	3.80			1.35		5.13		
	1st Cross W/S	1	4.00			1.35		5.40		
		1	4.50			1.35		6.08		
		1	3.50			1.35		4.73		
		1	1.60			1.35		2.16		
		1	5.50			1.35		7.43		
	1st Cross Road 1st Cross Road E/S	1	2.90			1.35		3.92		
		1	5.20			1.35		7.02		
		1	4.00			1.35		5.40		
	1st Cross Road 1st Cross Road W/S	1	5.90			1.35		7.97		
		1	2.60			1.35		3.51		
		Total Qty =						**359.91**		
	Total	**Qty Limited to Tender Qty =**						**358.56**	777.62	**278824.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Measurements Recarded on :									
4	Providing granite slabs of selected quality roughly dressed having a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.									
	BS Slab for Missing/Damaged								Sqm	
	Bank Colony									
	1st Cross E/S	1	1.80			1.35		2.43		
		1	2.20			1.35		2.97		
	1st Cross W/S	1	1.60			1.35		2.16		
		1	1.50			1.35		2.03		
	2nd Cross S/S									
	W/S	1	2.60			1.35		3.51		
		1	4.40			1.35		5.94		
	2nd Cross N/S									
	E/S	1	4.30			1.35		5.81		
	W/S	1	3.80			1.35		5.13		
		1	1.60			1.35		2.16		
	Hanuman Badavane									
	3rd Cross Road E/S	1	3.50			1.35		4.73		
		1	2.50			1.35		3.38		
	3rd Cross Road W/S	1	3.20			1.35		4.32		
		1	1.50			1.35		2.03		
	4th Cross Road E/S	1	3.10			1.35		4.19		
		1	4.20			1.35		5.67		
	4th Cross Road W/S	1	5.50			1.35		7.43		
		1	3.40			1.35		4.59		
		1	3.50			1.35		4.73		
	6th Cross Road E/S	1	6.50			1.35		8.78		
		1	5.60			1.35		7.56		
	Buddha Jyothi Layout									
	Main Road N/S	1	4.30			1.35		5.81		
		1	5.50			1.35		7.43		
	Main Road S/S	1	4.90			1.35		6.62		
		1	4.50			1.35		6.08		
	1st Cross E/S	1	4.60			1.35		6.21		
		1	4.50			1.35		6.08		
		1	2.60			1.35		3.51		
		Total Qty =						**131.22**		
	Total	**Qty Limited to Tender Qty =**						**129.60**	1013.12	**131301.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Measurements Recarded on :									
5	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 09 is =							**39.43**	6082.38	**239829.00**
6	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm									
	RCC Drain									
	Bottom Raft									
	Bank Colony									
	3rd Cross Road E/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	8.80			0.90	0.15	1.19		
	3rd Cross Road W/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	13.00			0.90	0.15	1.76		
	Main Road N/S	1	15.00			0.90	0.15	2.03		
		1	5.60			0.90	0.15	0.76		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	3.00			0.90	0.15	0.41		
	Main Road S/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	4.40			0.90	0.15	0.59		
	2nd Cross S/S E/S	1	12.20			0.90	0.15	1.65		
	2nd Cross N/S W/S	1	8.30			0.90	0.15	1.12		
	Side Wall									
	Bank Colony									
	3rd Cross Road E/S	2	15.00			0.15	0.75	3.38		
		2	15.00			0.15	0.75	3.38		
		2	15.00			0.15	0.75	3.38		
		2	15.00			0.15	0.75	3.38		
		2	8.80			0.15	0.75	1.98		
	3rd Cross Road W/S	2	15.00			0.15	0.75	3.38		
		2	15.00			0.15	0.75	3.38		
		2	13.00			0.15	0.75	2.93		
	Main Road N/S	2	15.00			0.15	0.75	3.38		
		2	5.60			0.15	0.75	1.26		
		2	15.00			0.15	0.75	3.38		
		2	15.00			0.15	0.75	3.38		
		2	3.00			0.15	0.75	0.68		

67.08

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Main Road S/S	2	15.00			0.15	0.75	3.38	67.88	
		2	15.00			0.15	0.75	3.38		
		2	4.40			0.15	0.75	0.99		
	2nd Cross S/S E/S	2	12.20			0.15	0.60	2.20		
	2nd Cross N/S W/S	2	8.30			0.15	0.60	1.49		
	Culvert									
	Bottom Raft									
	Bank Colony									
	3rd Cross Road	1	6.30			1.20	0.20	1.51		
	2nd Cross	1	6.00			1.20	0.20	1.44		
		1	4.60			1.20	0.20	1.10		
	Side Wall									
	Bank Colony									
	3rd Cross Road	2	6.30			0.20	0.60	1.51		
	2nd Cross	2	6.00			0.20	0.60	1.44		
		2	4.60			0.20	0.60	1.10		
		Total Qty =						**86.50**		
	Total	**Qty Limited to Tender Qty =**						**86.35**	8100.69	**699495.00**

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Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Measurements Recarded on :									
7	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.									
									Tonne	
	Qty as per Premeasurement vide E-MB Page No. 10 is =							**5.40**	94944.69	**512702.00**
8	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., copmplete.									
	For New Drain									
	Bank Colony									
	3rd Cross E/S	105	0.60			0.75		47.25		
	3rd Cross W/S	72	0.60			0.75		32.40		
	Main Road N/S	35	0.60			0.75		15.75		
		55	0.60			0.75		24.75		
	Main Road S/S	35	0.60			0.75		15.75		
		33	0.60			0.75		14.85		
		7	0.60			0.75		3.15		
	2nd Cross S/S E/S	35	0.60			0.75		15.75		
	2nd Cross N/S W/S	14	0.60			0.75		6.30		
	1st Cross E/S	81	0.60			0.75		36.45		
		53	0.60			0.75		23.85		
	Missing Covering Slab									
		35	0.60			0.90		18.90		
		56	0.60			0.90		30.24		
		48	0.60			0.90		25.92		
		28	0.60			0.90		15.12		
		35	0.60			0.90		18.90		
		33	0.60			0.90		17.82		
		28	0.60			0.90		15.12		
		27	0.60			0.90		14.58		
		43	0.60			0.90		23.22		
		36	0.60			0.90		19.44		
		Total Qty =						**435.51**		
	Total	**Qty Limited to Tender Qty =**						**435.00**	2014.26	**876204.00**

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Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Measurements Recarded on :									
9	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.As per Engineer incharge.									
	Culver cover Slab									
	Bank Colony									
	3rd Cross Road	1	6.30			1.20		7.56		
	2nd Cross	1	6.00			1.20		7.20		
		1	4.60			1.20		5.52		
		Total Qty =						**20.28**		
	Total	**Qty Limited to Tender Qty =**						**17.88**	5678.06	**101524.00**

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Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
	Measurements Recarded on :									
10	Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications.									
	Flagging coarse PCC									
	Bank Colony									
	1st Cross E/S	1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	4.70			0.20	0.10	0.09		
	1st Cross W/S	1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	4.70			0.20	0.10	0.09		
	1st Cross E/S	1	15.00			0.20	0.10	0.30		
		1	15.00			0.20	0.10	0.30		
		1	5.00			0.20	0.10	0.10		
		1	15.00			0.20	0.10	0.30		
		1	4.70			0.20	0.10	0.09		
	Flagging coarse Coping									
	Bank Colony									
	1st Cross E/S	2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	4.70			0.20	0.10	0.19		
	1st Cross W/S	2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	4.70			0.20	0.10	0.19		
	2nd Cross S/S									
	W/S	2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	4.00			0.20	0.10	0.16		
	E/S	2	12.00			0.20	0.10	0.48		
	2nd Cross N/S									
	E/S	2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
		2	5.70			0.20	0.10	0.23	16.69	
	W/S	2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	15.00			0.20	0.10	0.60		
		2	12.40			0.20	0.10	0.50		
		Total Qty =						19.22		
	Total	**Qty Limited to Tender Qty =**						**18.96**	6576.08	**124683.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.,B	D	Qty	Rate / Unit	Amount
	Measurements Recarded on :									
11	Providing and constructing load bearing wall with **solid concrete blocks** having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications.									
	Flagging coarse									
	Bank Colony									
	1st Cross E/S	2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	4.70				0.60	5.64		
	1st Cross W/S	2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	4.70				0.60	5.64		
	2nd Cross S/S									
	W/S	2	15.00				0.60	18.00		
		2	15.00				0.60	18.00		
		2	4.00				0.60	4.80		
	E/S	2	12.00				0.60	14.40		
	2nd Cross N/S									
	E/S	2	15.00				0.40	12.00		
		2	15.00				0.40	12.00		
		2	15.00				0.40	12.00		
		2	15.00				0.40	12.00		
		2	5.70				0.40	4.56		
	W/S	2	15.00				0.40	12.00		
		2	15.00				0.40	12.00		
		2	15.00				0.40	12.00		
		2	12.70				0.40	10.16		
		Total Qty =						**381.20**		
	Total	**Qty Limited to Tender Qty =**						**379.20**	1026.45	**389230.00**

Executive Engineer (BTP), BBMP

Executive Engineer (BTP), BBMP

Executive Engineer (BTP), BBMP

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.,B	D	Qty	Rate / Unit	Amount
	Measurements Recarded on :									
12	**Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 11 is =							**85.17**	58.96	**5022.00**
13	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications.									
									Sqm	
	Qty as per Premeasurement vide E-MB Page No. 12 is =							**1476.79**	43.32	**63975.00**
14	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.									
									Sqm	
	Qty as per Premeasurement vide E-MB Page No. 13 is =							**1476.79**	6.67	**9851.00**
15	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 14 is =							**36.98**	2090.68	**77314.00**
16	Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.									
									Cum	
	Bank Colony									
	3rd Cross	1	15.00	4.50	4.50	4.50	0.23	15.53		
		1	15.00	4.50	4.40	4.45	0.23	15.35		
		1	15.00	4.40	4.50	4.45	0.23	15.35		
		1	15.00	4.50	4.50	4.50	0.23	15.53		
		1	3.10	4.50	4.60	4.55	0.23	3.24		
	2nd Cross N/S									
		1	15.00	4.30	4.40	4.35	0.23	15.01		
		1	15.00	4.40	4.50	4.45	0.23	15.35		
		1	15.00	4.50	4.40	4.45	0.23	15.35		
		1	15.00	4.40	4.50	4.45	0.23	15.35		
		1	5.20	4.50	4.60	4.55	0.23	5.44		
	2nd Cross S/S									
		1	15.00	4.30	4.20	4.25	0.23	14.66		
		1	15.00	4.20	4.30	4.25	0.23	14.66		
		1	4.00	4.30	4.40	4.35	0.23	4.00		
	1st Cross									
		1	15.00	4.50	4.30	4.40	0.23	15.18		
		1	15.00	4.30	4.40	4.35	0.23	15.01		
		1	15.00	4.40	4.50	4.45	0.23	15.35		
		1	15.00	4.50	4.60	4.55	0.23	15.70		

Sl No	Description of work	Mesurement						Qty	Rate / Unit	Amount
		No.	L	B1	B2	Av.,B	D			
		1	15.00	4.60	4.50	4.55	0.23	15.70		
		1	15.00	4.50	4.50	4.50	0.23	15.53		
		1	4.70	4.50	4.60	4.55	0.23	4.92		
	Main Road									
		1	15.00	5.50	5.60	5.55	0.23	19.15		
		1	15.00	5.60	5.80	5.70	0.23	19.67		
		1	15.00	5.80	5.60	5.70	0.23	19.67		
		1	14.60	5.60	5.70	5.65	0.23	18.97		
		Total Qty =						**339.66**	2097.34	**712387.00**
									Grand Total =	**4591405.00**
									GST Charges (12% Execution Cost) =	**550969.00**
									Total Amount =	**5142374.00**

Executive Engineer (BTP), BBMP.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97